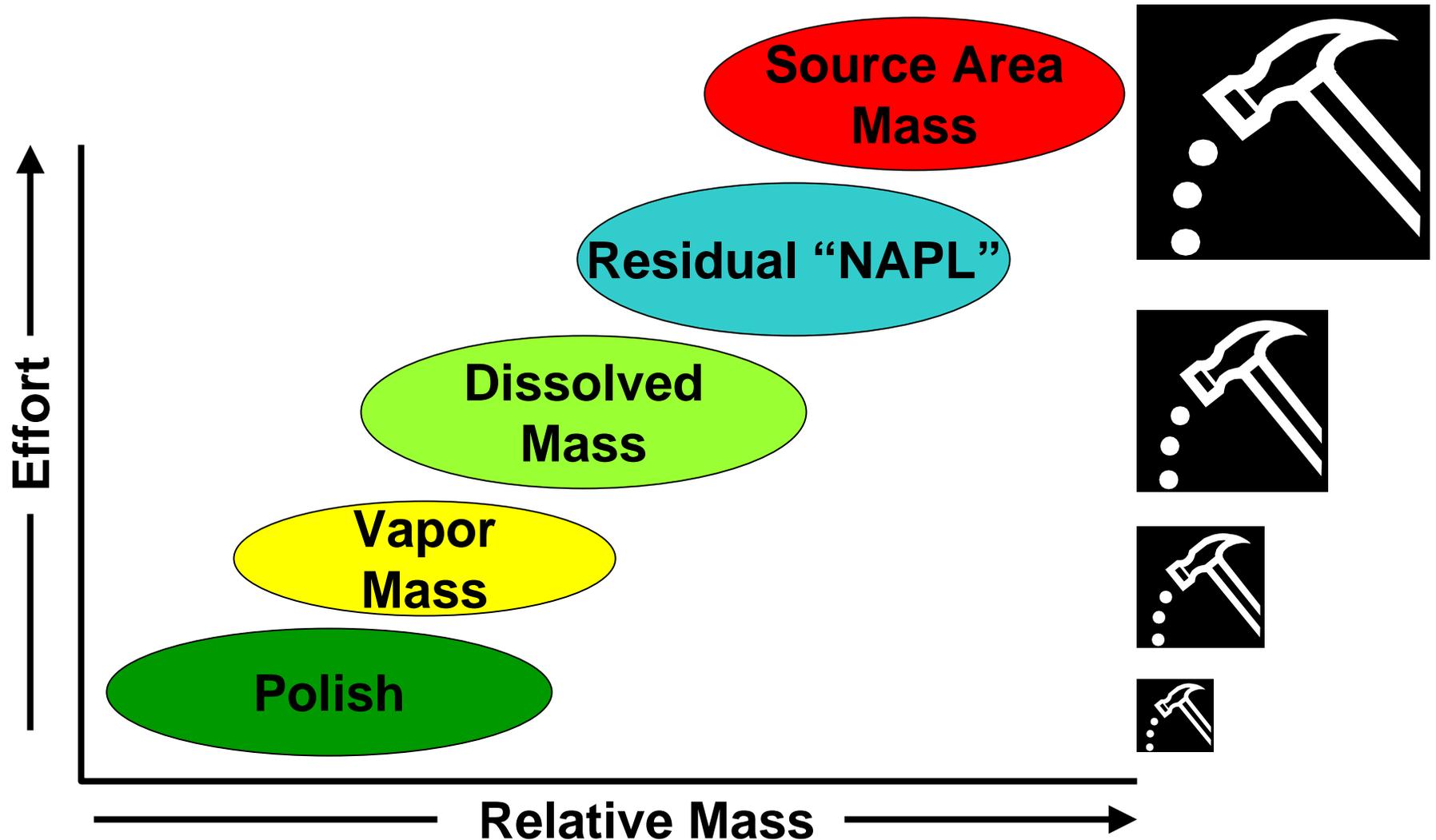
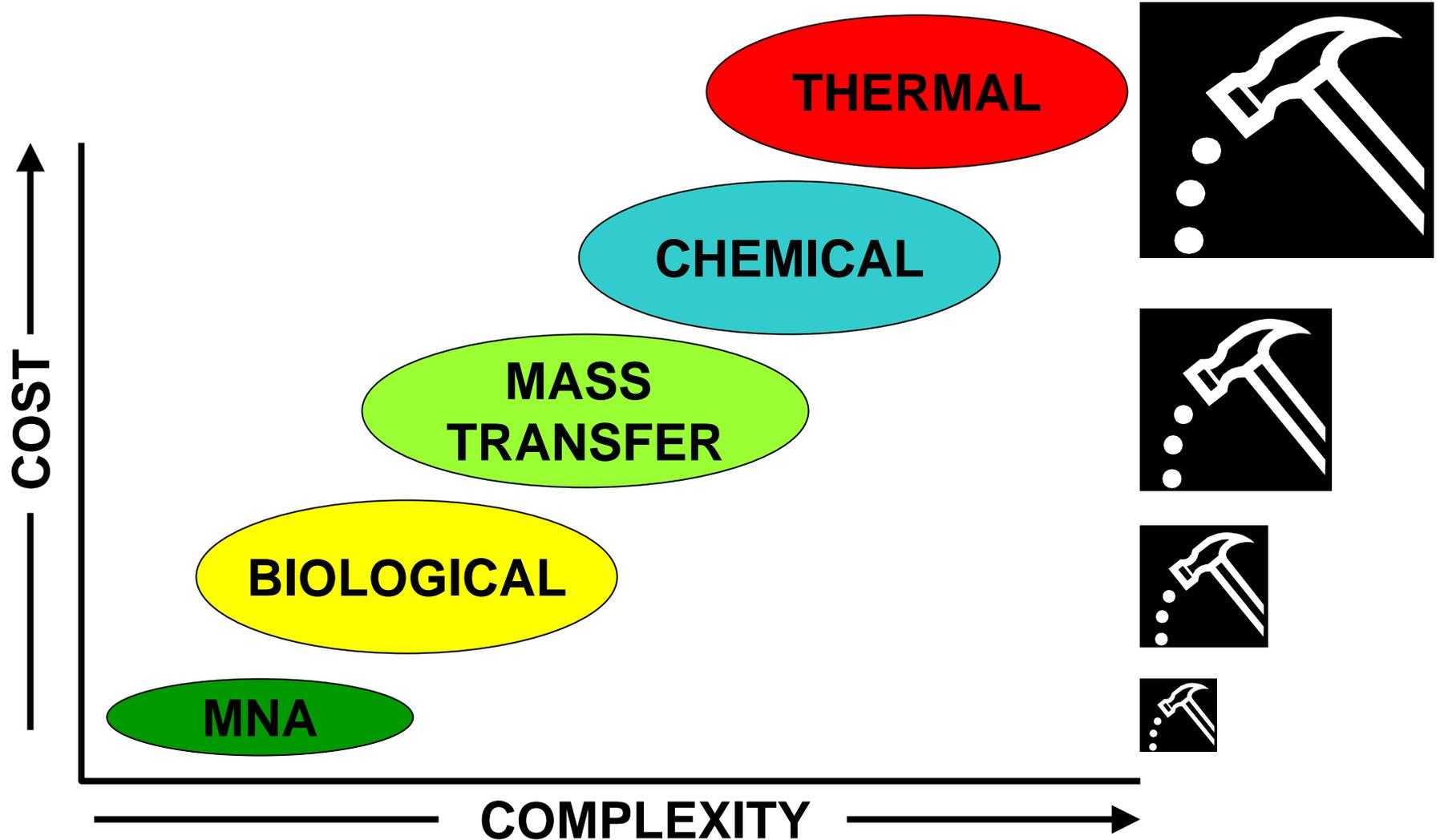


"Hit It With A Bigger Hammer"



Hierarchy of Remedial Application



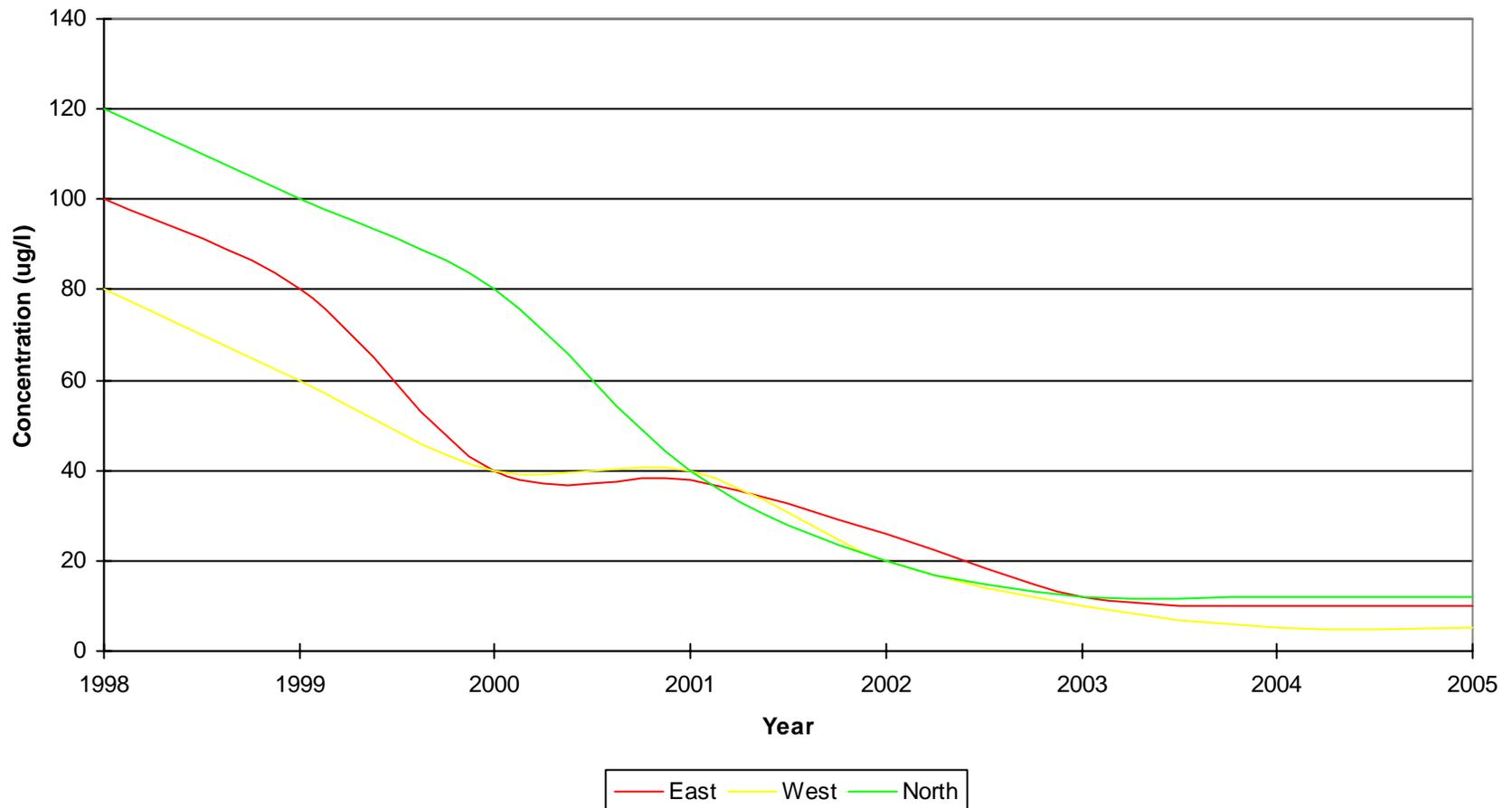
“Accidental” Remediation

“The Law of conservation of energy tells us we can't get something for nothing, but we refuse to believe it.” -- **Isaac Asimov**

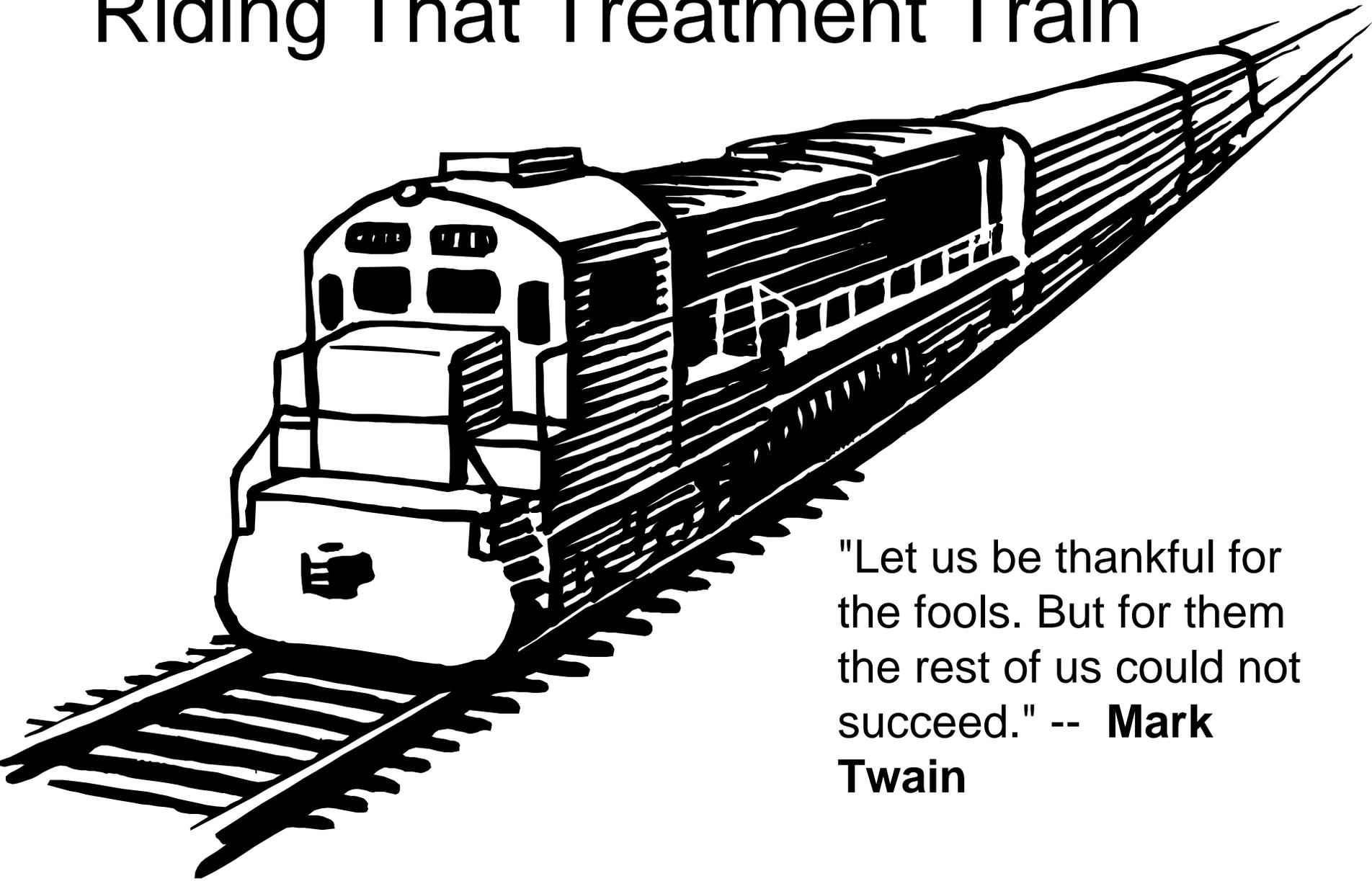
- Chemical Oxidation with H₂O₂ Injected for In Situ Bioremediation
 - BTEX / Trimethylbenzenes
- Bioremediation Subsequent to Chemical Oxidation – Complex Geochemistry
 - Ozone – PCP partial breakdown products biologically degraded with high DO concentrations in groundwater
 - Other Potential Terminal Electron Acceptors –
 - S / Fe / Mn
- “ChemBio”

Typical Remediation Results

"I have a theory that the truth is never told during the nine-to-five hours." -- **Hunter S. Thompson**

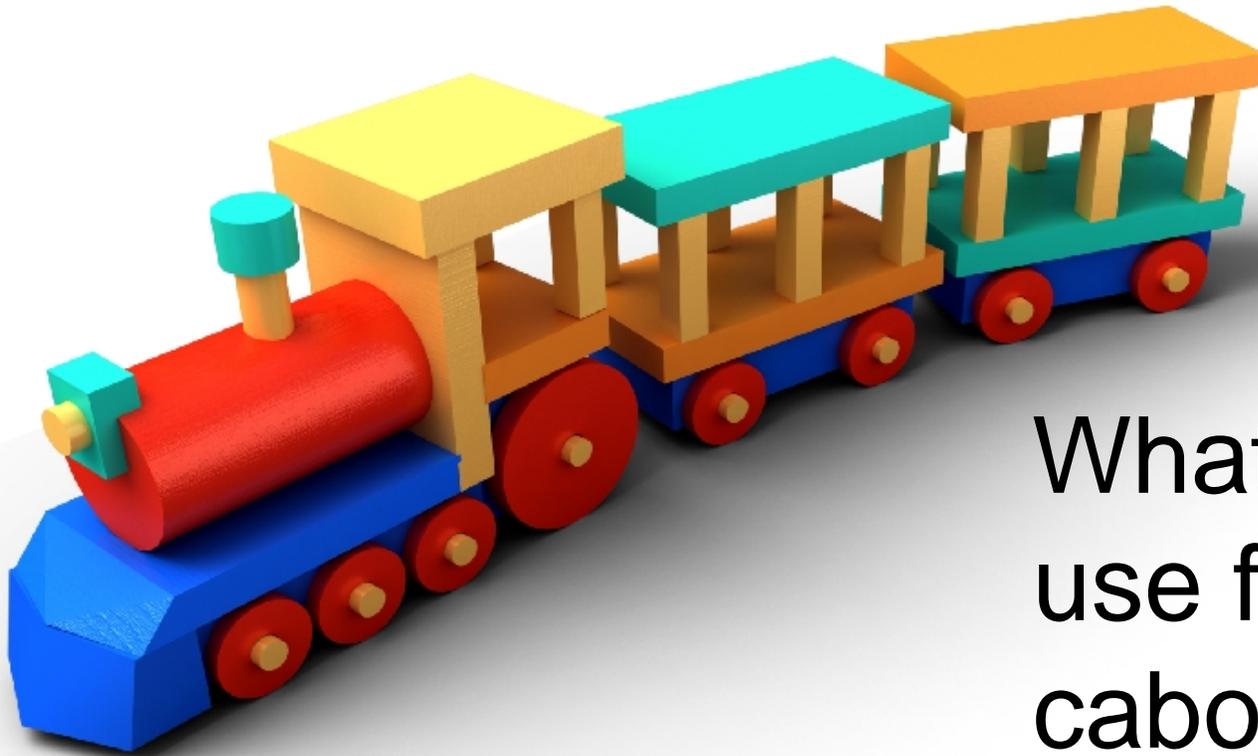


Riding That Treatment Train



"Let us be thankful for the fools. But for them the rest of us could not succeed." -- **Mark Twain**

Coupling Technologies



What do you use for the caboose to polish off the tail?

Polishing It Off

- Bioremediation options can lose efficacy due to electron donor / electron acceptor inversion.
- Chemical Oxidation options can lose efficacy due to contaminant / oxidant interaction.
- MNA Might not be your last option.
 - Rebound
 - Spatial & Temporal Variations